

ABSTRACT

A scanning device for measuring the distance between the scanning device and a plurality of surface points on a target object. The scanning device sweeps a laser beam and a line scan camera in synchronization up and down the surface of the target object. The line scan camera monitors the impact point of the laser beam upon the target object within its field of view. By knowing the position of the impact point within the camera's field of view, trigonometric principles can be applied to accurately calculate the distance to the impact point.